

### **REMARKS/ARGUMENTS**

Applicants appreciate the thorough review of the present application as evidenced by the Official Action. The Official Action has rejected Claims 1, 2, 4-10, 14-15, 17-23, 27-28, and 30-36 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,418,413 to DeMarcken et al. ("the DeMarcken '413 patent"). The Official Action objected to Claims 11-13, 24-26, and 37-39 as being dependent upon a rejected base claim but indicated that the claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As explained more fully below, independent Claims 1, 14, and 27, as well as their respective dependent claims, are patentably distinguishable from the cited reference. Independent Claims 8, 21, and 34 have been amended to further patentably distinguish the claims, as well as their respective dependent claims, from the cited reference. In light of the claim amendments and subsequent remarks, Applicants respectfully request reconsideration and allowance of the claims.

#### ***A. The Rejection of Claims 1, 14, and 27 under 35 U.S.C. § 102(e) is Overcome***

The Official Action rejected Claims 1, 14, and 27 under 35 U.S.C. § 102(e) as being anticipated by the DeMarcken '413 patent. Based upon the comments regarding independent Claims 1, 14, and 27 below, Applicants respectfully traverse the rejection of Claims 1, 14, and 27 under 35 U.S.C. § 102(e).

The DeMarcken '413 patent describes a travel planning system that can receive travel requests, such as flight travel requests, and produce a set of flights that can satisfy the request. The system also includes an availability predictor that is used to determine the availability of seats on a particular flight of a particular airline. See Col. 3, lines 40-50 and Col. 4, lines 9-14 and 62-67. The availability predictor may include a database that stores previous availability queries and answers that were obtained by the availability predictor, or other sources, when the availability predictor could not trust or provide a prediction and, thus, issued an actual availability query. See Col. 5, lines 10-18. In response to a query, the availability predictor

produces either a prediction for the answer of the query or an actual answer depending upon whether the availability predictor retrieves an answer from the database or the actual availability system. See Col. 6, lines 52-57 and Col. 7, lines 16-46.

The availability predictor of the DeMarcken '413 patent may also include a threshold predictor to determine whether a stored query is stale. See Col. 7, lines 52-62. For example, for every airline/booking-code/days-before-departure entry in a table, there may be an associated number of hours after which a database answer will be considered stale. See Col. 8, lines 3-16. The availability predictor may return a not available/available answer to a query, or it may return a probability estimate. For example, if the last few months of availability queries for AA flight 66 that were sent 3 days in advance of travel and had a booking code Q were available 80 percent of the time, then 0.8 could be stored in a table under the stated criteria. Thus, when the availability predictor received a query regarding AA flight 66, 3 days in advance of travel and with a booking code Q, the availability predictor could return an answer that there is an 80 percent chance that a seat on the associated flight will be available to the buyer. See Col. 8, lines 58-62. The DeMarcken '413 patent, therefore, provides a user with a prediction of only the current availability for a flight that satisfies the user request and, if the prediction is not acceptable, such as in instances in which the prediction is stale, then the actual current availability is obtained and provided to the user.

In contrast to the disclosure of the DeMarcken '413 patent, independent Claims 1, 14, and 27 recite a method, system, and computer-readable medium that obtain current availability information for a candidate itinerary and determine a probability that the candidate itinerary will remain available for booking for a period of time in the future based at least in part upon the current availability information and historical availability information for the candidate itinerary. Thus, the claimed invention provides not only current availability information, but also future availability information for the candidate itinerary. As Figure 1 illustrates in conjunction with one embodiment of the present invention, for each candidate itinerary, availability information is collected from a conventional global distribution system (GDS) that provides the number of seats that are currently available for booking within each fare class (step 110). If the availability information indicates that there are sufficient currently available seats to book the candidate

itinerary, then the probability that the candidate itinerary will continue to be available in the future for the number of passengers requested by the client is determined (step 130). The probability of continued availability may be determined by accessing a probability table that represents a historical percentage of instances that the flight in the candidate itinerary remained open for certain periods of time following the time of the request. Thus, the claimed invention provides for obtaining the current availability of a candidate itinerary and determining the probability that the candidate itinerary will remain available for booking for a period of time in the future based at least in part upon the current availability information and historical availability information for the candidate itinerary.

While the DeMarcken '413 patent discloses an availability predictor that is used to predict the availability of seats on a particular flight of a particular airline in response to a travel request, it does not disclose obtaining current availability information for a candidate itinerary and determining a probability that the candidate itinerary will remain available for booking for a period of time in the future based at least in part upon the current availability information and historical availability information for the candidate itinerary as recited by amended independent Claims 1, 14, and 27. Because the DeMarcken '413 patent describes only predicting the current availability of seats on a particular flight, it does not provide any prediction of future availability, which is unlike the claimed invention. Furthermore, although the availability predictor of the DeMarcken '413 patent may also determine whether a stored query is stale and may return a probability estimate of the seat availability, this probability estimate defined the probability of the seat actually currently being available, and the DeMarcken '413 patent does not determine a probability that the candidate itinerary will remain available for booking for a period of time in the future, as recited by independent Claims 1, 14 and 27.

The DeMarcken '413 patent uses the example of receiving a query regarding AA flight 66, 3 days in advance of travel and with a booking code Q and returning an answer that there is an 80 percent chance that a seat on the associated flight will be available at the present time to the buyer based upon answers to prior similar queries. Thus, the query described in the example was made 3 days in advance of travel and the answer returned is the predicted current availability. The DeMarcken '413 patent, therefore, provides a user with a prediction of only the

current availability for a flight that satisfies the user request and does not provide any type of probability that the candidate itinerary will remain available for booking for a period of time in the future, as recited by independent Claims 1, 14, and 27.

An example is illustrative of the distinction between the DeMarcken '413 patent and Claims 1, 14, and 27. Figure 2 of the present application demonstrates that the claimed invention provides for both obtaining current availability information and determining a probability that the candidate itinerary will remain available for booking for a period of time in the future. Figure 2 illustrates a candidate itinerary (200), as well as the percentage probabilities that the candidate itinerary will remain available after two days, four days, or seven days (220) from the date of receiving the candidate itinerary. For example, Figure 2 shows that there is a 30% probability that the candidate itinerary will remain available for two days. The DeMarcken '413 patent does not teach or suggest predicting probabilities that the candidate itinerary will remain open following the customer request, as DeMarcken only discloses providing an answer regarding current availability to a query or predicting an answer for the current availability.

In addition, the DeMarcken '413 patent does not disclose any type of technique for determining the probability that the unavailable candidate itinerary will become available if the current availability information indicates that there are not sufficient currently available seats to book the candidate itinerary, unlike the aspect of the claimed invention described in dependent claims 7, 20 and 33. As discussed above, the DeMarcken '413 patent provides a user with a prediction of only the current availability for a flight that satisfies the user request without any provision for determining a probability that an unavailable itinerary will become available, as recited by dependent claims 7, 20 and 33.

***B. The Rejection of Claims 8, 21, and 34 under 35 U.S.C. § 102(e) is Overcome***

The Official Action rejected Claims 8, 21, and 34 under 35 U.S.C. § 102(e) as being anticipated by the DeMarcken '413 patent. Based upon the amendments to independent Claims 8, 21, and 34 below, Applicants respectfully submit that the rejection of Claims 8, 21, and 34 under 35 U.S.C. § 102(e) is overcome.

Independent Claims 8, 21, and 34 provide a method, system, and computer readable medium for increasing reliability of booking airline travel itineraries which Applicants submit are patentably distinct from the DeMarcken '413 patent. The Official Action continues to reject these claims, but did agree that DeMarcken does not disclose a situation table that is created based on availability information from two data sources. In order to expedite prosecution, independent Claims 8, 21, and 34 have now been amended to include the recitation that the situation table that assists in determining if the availability information should be updated is created based upon availability data from at least two data sources. For example, amended independent Claim 8 recites obtaining a candidate itinerary including availability information, determining whether the availability information should be updated based on the candidate itinerary and a situation table that is created based upon availability data from at least two data sources. In one embodiment of the present invention, the two data sources include AVS and DCA availability information. Thus, to create a situation table, both AVS availability information, which is periodically updated and relatively less expensive to utilize, and DCA availability information, which is updated in real-time and relatively more expensive to utilize, are obtained and compared for each candidate itinerary to determine any differences in the availability information.

As noted by the Official Action, the DeMarcken '413 patent does not teach or suggest creating a situation table based on availability information from at least two data sources, as now recited by amended independent Claims 8, 21, and 34. Therefore, amended independent Claims 8, 21, and 34 are patentably distinguishable over the DeMarcken '413 patent and are in condition for allowance.

For the forgoing reasons, the DeMarcken '413 patent does not teach or suggest the methods, systems and computer readable mediums of independent Claims 1, 14, and 27 and amended independent Claims 8, 21, and 34. Since the independent claims are patentably distinct from the cited reference, the claims that depend therefrom are also patentably distinct from the cited reference for at least the same reasons since the dependent claims include each of the elements of a respective independent claim. A number of the dependent claims include recitations that are not taught or suggested by the DeMarcken '413 patent, and are therefore also

patentably distinct from DeMarcken, such as dependent Claims 7, 20, and 33 discussed previously. Consequently, Applicants submit that, for at least those reasons set forth above, the rejections of the claims under 35 U.S.C. § 102(e) are therefore overcome.

### CONCLUSION

In view of the amended claims and remarks presented above, it is respectfully submitted that all of the present claims of the present application are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

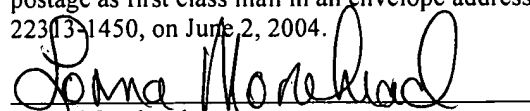


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CLT01/4647704v1